

one or more processors (e.g., as one or more programs running on one or more microprocessors), as firmware, or as virtually any combination thereof, and that designing the circuitry or writing the code for the software and/or firmware would be well within the skill of one of skill in the art in light of this disclosure. In addition, the mechanisms of the subject matter described herein are capable of being distributed as a program product in a variety of forms, and that an illustrative embodiment of the subject matter described herein applies regardless of the particular type of signal-bearing medium used to actually carry out the distribution. Non-limiting examples of a signal-bearing medium include the following: a recordable type medium such as a floppy disk, a hard disk drive, a Compact Disc (CD), a Digital Video Disk (DVD), a digital tape, a computer memory, etc.; and a transmission type medium such as a digital or an analog communication medium (e.g., a fiber optic cable, a waveguide, a wired communications link, a wireless communication link (e.g., transmitter, receiver, transmission logic, reception logic, etc.), etc.).

While particular aspects of the present subject matter described herein have been shown and described, it will be apparent to the reader that, based upon the teachings herein, changes and modifications can be made without departing from the subject matter described herein and its broader aspects and, therefore, the appended claims are to encompass within their scope all such changes and modifications as are within the true spirit and scope of the subject matter described herein. In general, terms used herein, and especially in the appended claims (e.g., bodies of the appended claims) are generally intended as “open” terms (e.g., the term “including” should be interpreted as “including but not limited to,” the term “having” should be interpreted as “having at least,” the term “includes” should be interpreted as “includes but is not limited to,” etc.). Further, if a specific number of an introduced claim recitation is intended, such an intent will be explicitly recited in the claim, and in the absence of such recitation no such intent is present. For example, as an aid to understanding, the following appended claims may contain usage of the introductory phrases “at least one” and “one or more” to introduce claim recitations. However, the use of such phrases should not be construed to imply that the introduction of a claim recitation by the indefinite articles “a” or “an” limits any particular claim containing such introduced claim recitation to claims containing only one such recitation, even when the same claim includes the introductory phrases “one or more” or “at least one” and indefinite articles such as “a” or “an” (e.g., “a” and/or “an” should typically be interpreted to mean “at least one” or “one or more”); the same holds true for the use of definite articles used to introduce claim recitations. In addition, even if a specific number of an introduced claim recitation is explicitly recited, such recitation should typically be interpreted to mean at least the recited number (e.g., the bare recitation of “two recitations,” without other modifiers, typically means at least two recitations, or two or more recitations). Furthermore, in those instances where a convention analogous to “at least one of A, B, and C, etc.” is used, in general such a construction is intended in the sense of the convention (e.g., “a system having at least one of A, B, and C” would include but not be limited to systems that have A alone, B alone, C alone, A and B together, A and C together, B and C together, and/or A, B, and C together, etc.). In those instances where a convention analogous to “at least one of A, B, or C, etc.” is used, in general such a construction is intended in the sense of the convention (e.g., “a system having at least one of A, B, or C” would include but not be limited to systems that have A alone, B alone, C alone, A and

B together, A and C together, B and C together, and/or A, B, and C together, etc.). Typically a disjunctive word or phrase presenting two or more alternative terms, whether in the description, claims, or drawings, should be understood to contemplate the possibilities of including one of the terms, either of the terms, or both terms unless context dictates otherwise. For example, the phrase “A or B” will be typically understood to include the possibilities of “A” or “B” or “A and B.”

With respect to the appended claims, the operations recited therein generally may be performed in any order. Also, although various operational flows are presented in a sequence(s), it should be understood that the various operations may be performed in orders other than those that are illustrated, or may be performed concurrently. Examples of such alternate orderings include overlapping, interleaved, interrupted, reordered, incremental, preparatory, supplemental, simultaneous, reverse, or other variant orderings, unless context dictates otherwise. Furthermore, terms like “responsive to,” “related to,” or other past-tense adjectives are generally not intended to exclude such variants, unless context dictates otherwise.

While various aspects and embodiments have been disclosed herein, other aspects and embodiments are contemplated. The various aspects and embodiments disclosed herein are for purposes of illustration and are not intended to be limiting, with the true scope and spirit being indicated by the following claims.

What is claimed is:

1. An intra-oral x-ray sensor, comprising:

an x-ray image component configured to acquire intra-oral x-ray image information associated with a patient; and an intra-oral radiation shield structure configured to reduce at least one of x-ray scattering, transmission, or re-radiation by at least 50%, wherein a portion of the intra-oral radiation shield structure is flexible or jointed so as to conform to a portion of an oral cavity.

2. The intra-oral x-ray sensor of claim 1, wherein the intra-oral radiation shield structure includes one or more high atomic number (high-Z) materials in an amount sufficient to reduce at least one of x-ray scattering, transmission, or re-radiation by at least 50%.

3. The intra-oral x-ray sensor of claim 1, wherein the intra-oral radiation shield structure includes one or more materials having a K-edge greater than 15 kiloelectron volts in an amount sufficient to reduce at least one of x-ray scattering, transmission, or re-radiation by at least 50%.

4. The intra-oral x-ray sensor of claim 1, wherein the intra-oral radiation shield structure includes one or more materials having an L-edge greater than 10 kiloelectron volts in an amount sufficient to reduce at least one of x-ray scattering, transmission, or re-radiation by at least 50%.

5. The intra-oral x-ray sensor of claim 1, wherein the intra-oral radiation shield structure includes a laminate structure having at least a first layer and a second layer, the second layer having an x-ray attenuation profile different from the first layer.

6. The intra-oral x-ray sensor of claim 1, wherein at least a portion of the intra-oral radiation shield structure is mounted behind an x-ray image detector on the intra-oral x-ray sensor.

7. The intra-oral x-ray sensor of claim 1, wherein at least a portion of the intra-oral radiation shield structure is formed from at least one x-ray attenuating material, x-ray radio-opaque material, or x-ray attenuating ceramic material.

8. The intra-oral x-ray sensor of claim 1, wherein the intra-oral radiation shield structure is removably attachable.